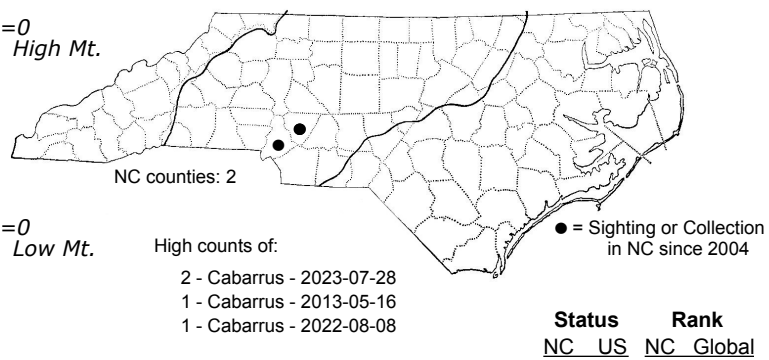
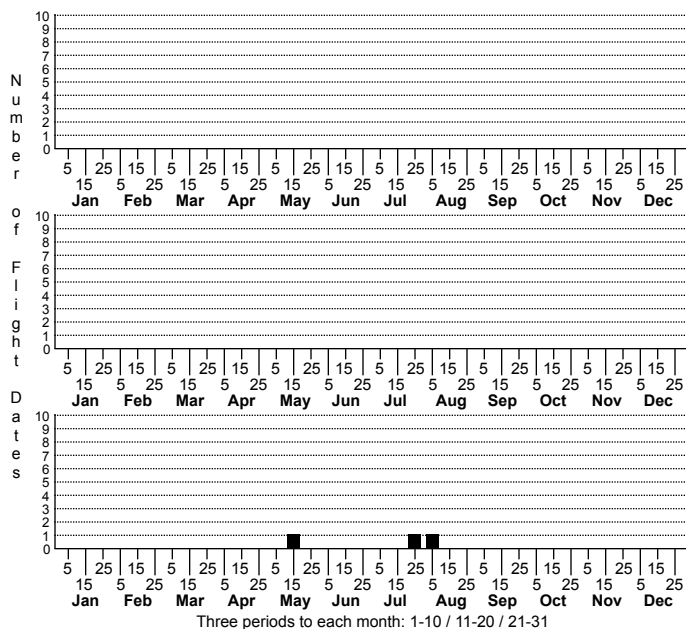


# *Pachysphinx modesta* Big Poplar Sphinx



FAMILY: Sphingidae SUBFAMILY: Smerinthinae TRIBE: Smerinthini

TAXONOMIC\_COMMENTS: This genus contains three similar species but members of the genus are quite unlike other Sphingids in our area.

FIELD GUIDE DESCRIPTIONS: Covell (1984); Beadle and Leckie (2012)

ONLINE PHOTOS: MPG, Bugguide, BAMONA

TECHNICAL DESCRIPTION, ADULTS: Forbes (1948); Hodges (1971); Tuttle (2007)

TECHNICAL DESCRIPTION, IMMATURE STAGES: Forbes (1948); Wagner (2005); Tuttle (2007)

ID COMMENTS: This large, greenish-brown moth with reddish pink hindwings is unique in the East. Sexes are similar.

DISTRIBUTION: Known in North Carolina only from a single record from Cabarrus County in the western Piedmont. Host plants occur more widely, particularly in brownwater floodplains in the Coastal Plain, but the species has not yet been recorded in that area.

FLIGHT COMMENT: Probably single brooded with adults in late May.

HABITAT: Unclear in North Carolina but Eastern Cottonwood -- the only species of *Populus* native to the area of the western Piedmont where this species has been recorded -- occurs primarily in riparian habitats. Exotic species are also present, either used in landscaping or escaping into disturbed areas. *Pachysphinx* has not been recorded in brownwater river floodplains where both Eastern and Swamp Cottonwoods are common.

FOOD: Stenophagous, possibly feeding solely on Cottonwoods and other *Populus* species. Once thought to also use Willows but efforts to find larvae on those species have failed (Tuttle, 2007).

OBSERVATION\_METHODS: Adults are attracted to light but not flowers nor bait. Like other large Sphingids, it may be undersampled by use of 15 watt UV blacklights but may come better to high intensity UV sources, such as mercury-vapor.

NATURAL HERITAGE PROGRAM RANKS: G5 S1S2

STATE PROTECTION: Currently not listed by the Natural Heritage Program but we recommend that it be rated as Significantly Rare. Has no legal protection, although permits are required to collect it on state parks and other public lands.

COMMENTS: In North Carolina, this species is likely a habitat specialist on Cottonwood-containing floodplains but has not been recorded in some areas with extensive areas of this habitat, e.g., the floodplains of the lower coursed of the Roanoke and Cape Fear Rivers. More surveys, making use of mercury-vapor lights, are needed to determine its distribution and conservation status in the state.